

The Leibniz Centre for Tropical Marine Research (ZMT) GmbH (www.leibniz-zmt.de) is an independent research and teaching institute that provides scientific knowledge for the protection and sustainable use of tropical coastal ecosystems. To this end, we work in an inter- and transdisciplinary manner with our partners in the tropics. The ZMT is a member of the Leibniz Association.

A recent strategic extension of ZMT entitled 'Modelling Socio-Economic Dimensions Across Tropical Coastal Ecosystems and the Earth system – TropEcS' aims to link the existing research capacities of ZMT in the fields of socioeconomics, marine ecology, physical oceanography and biogeochemistry with Earth system modelling.

At ZMT, the Programme Area on 'Societal Impact' serves as a hub for knowledge exchange and inter- and transdisciplinary research, focusing on integrating different forms of knowledge and strengthening capacities and partnerships for sustainable oceans and coasts. In this context (subject to release of funds), the working group "Transformation through Transdisciplinarity" (TripleT) is seeking a ...

Doctoral candidate (gn)

(Reference: 14-STB-PB5-PhD)

on the topic of **Knowledge Co-Production and Participatory Scenario Development for Modelling Coastal Social-Ecological Systems**. Focus region is the Eastern Tropical Pacific (Central America, particularly Costa Rica), with potential for comparative work in Colombia or Indonesia. The specific PhD project will be jointly developed with the successful candidate, taking into account their interests and skills.

Your tasks:

- Design and conduct inter- and transdisciplinary research activities with coastal communities and local researchers in the TropEcS focus region(s):
 - Develop place-based social-ecological system models for selected coastal sites with a focus on fisheries, tourism and/or conservation, using participatory modelling approaches (e.g. Causal Loop Diagrams, Bayesian Belief Networks) that bring together diverse knowledge systems.
 - Co-create locally meaningful scenarios of coastal futures with diverse actors (e.g. using the Three-Horizons approach) and systematically examine the implications of prioritized scenarios for the integrated modelling framework of TropEcS.
 - Contribute to developing and implementing a dynamic co-design process for the TropEcS Earth system model, and assess how perspectives and needs of coastal communities can be reflected in model configurations and outputs.
- Publish findings in peer-reviewed journals, present your research at international conferences, and actively engage in knowledge exchange across science, policy, and society.
- Contribute to transdisciplinary exchange and integration within TropEcS, TripleT and ZMT.
- With curiosity, move out of methodological and conceptual comfort zones to explore and surpass boundaries.

Requirements:

- Master's degree (or equivalent) in a relevant field (e.g. social sciences, marine or environmental sciences, (human) geography, sustainability research, political science, or related disciplines);
- Strong interest in inter- and transdisciplinary research at the ocean-society interface;
- Experience with organizing workshops, conducting interviews, or leading focus groups;
- Interest in coastal social-ecological systems and integrated modelling approaches;
- Good to very good written and spoken English skills, demonstrated scientific writing skills;
- Ability to work independently and collaboratively in interdisciplinary teams and transdisciplinary contexts, with strong communication, creativity & problem-solving skills;
- Willingness and ability to conduct fieldwork in tropical coastal regions.

Desirable qualifications:

- Spanish language skills;
- Experience with network analysis or social-ecological systems modelling, and knowledge of a programming language (R, Python);
- Experience with scenario development and working across knowledge systems;
- Experience contributing to marine or environmental research projects.

Further information:

For questions, please contact Dr. Annette Breckwoldt, email: annette.breckwoldt@leibniz-zmt.de and Michael Kriegl, email: michael.kriegl@leibniz-zmt.de

Details of position:

Salary will be paid according to the German TV-L (EG 13). The position is available for part-time (2/3 of a full-time position) employment starting as soon as possible for 36 months. The fixed term is for academic qualification according to § 2 (1) WissZeitVG (Wissenschaftszeitvertragsgesetz). Accordingly, only applicants who still have the relevant qualification periods according to § 2 (1) WissZeitVG can be considered. The position is intended to provide further academic qualification with the aim of obtaining a doctorate.

ZMT is an equal opportunity employer. Applicants with a migration background are welcome. Persons with severe disabilities are given special consideration if they have the same professional and personal qualifications. The ZMT values its diverse workforce and pursues the goal of providing equal opportunity, which incorporates gender neutrality (gn). We will be happy to accept your documents without a photo.

We offer:

- A challenging and varied job in an international, dynamic and interdisciplinary research environment
- A motivated and committed team from different countries and cultures
- An open and cooperative working atmosphere
- Opportunities for personal and professional development
- Interesting, varied and challenging tasks and family-friendly working conditions
- Company pension plan (VBL)
- Company health promotion and the opportunity to participate in company fitness with EGYM Wellpass

Submission of application:

Please submit your application documents, incl. cover letter describing your motivation for this position (1-2 pages), CV (1-2 pages), university transcripts (incl. Master's certificate or equivalent), short summary of your Master thesis, the names and contact **by 22.04.2026 as a single pdf file** with the reference number **"14-STB-PB5-PhD"** to Ms. Lena de Carné-Oehlmann, email: bewerbung@leibniz-zmt.de.

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